

The use of Chatgpt in Everyday Life: A Systematic Review through Swot Analysis Approach

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Introduction

In recent years, artificial intelligence (AI) and machine learning have significantly reshaped the landscape of scientific research. Among these advancements, chatbot technology has seen remarkable progress, with ChatGPT standing out as a prominent AI language model. These models are capable of generating content across diverse fields, including text, images, music, and more. Developed by OpenAI, ChatGPT has become a powerful tool with a wide array of applications. The creation of ChatGPT was driven by the goal of building an advanced and versatile AI language model to assist with tasks such as text generation, translation, and data analysis. Its influence has extended across multiple sectors, from natural language processing to customer service and content creation. This study aims to examine the SWOT (Strengths, Weaknesses, Opportunities, and Threats) of ChatGPT, explore its origins, and evaluate its ethical impact across different industries.

Background of ChatGPT

ChatGPT, developed by OpenAI, is a conversational AI based on the GPT (Generative Pre-trained Transformer) architecture. Its development began in 2018 with the introduction of GPT-1, which demonstrated the potential of unsupervised pre-training on large text datasets. This was followed by GPT-2 in 2019, featuring 1.5 billion parameters and showcasing impressive text generation abilities, though it also raised concerns about potential misuse. The major breakthrough occurred in 2020 with the release of GPT-3, a model with 175 billion parameters, which excelled in performing a wide range of language tasks. ChatGPT was officially launched in November 2022, fine-tuned from GPT-3 using Reinforcement Learning from Human Feedback (RLHF) to enhance its conversational skills, making it more engaging and coherent. With the release of GPT-4 in 2023, ChatGPT gained multimodal capabilities, improved reasoning, and increased versatility. Over time, it has evolved to include features like plugin support, tool integrations, and customization options,

revolutionizing industries such as education, customer service, and content creation, while setting new benchmarks for AI-driven communication.

Features of ChatGPT

- Natural language understanding and generation
- Customizable responses
- Multimodal capabilities (**in gpt-4 versions**)
- Context retention
- Knowledge and learning
- Tool and plugin integration
- Creative capabilities
- Educational assistance
- Cross-platform availability
- Ethical safeguards
- Multilingual support

Objectives of the Study

1. To make SWOT analysis of chatgpt.
2. To study the Ethical impact of chatgpt in everyday life.

SWOT Analysis of Chatgpt

Strength

Natural Language Mastery: Provides human-like, coherent, and context-aware responses across a wide range of topics.

Adaptability: Supports a variety of applications, including coding, writing, education, customer service, and creative endeavors.

Personalization: Offers the ability to adjust tone, style, and verbosity to match individual user preferences.

Ongoing Enhancement: Frequent updates and refinements ensure its capabilities evolve and better meet user demands.

Easy Accessibility: Available across multiple platforms with APIs for seamless integration into other applications.

Multimodal Abilities: Advanced versions, such as GPT-4, can process both text and image inputs for more dynamic interactions.

Multilingual Proficiency: Capable of understanding and communicating in several languages, enhancing its global reach.

Weaknesses

Reliance on Data: Knowledge is limited to the data it was trained on, meaning it may provide outdated information after its training cutoff or updates.

Accuracy Challenges: Can confidently generate incorrect or misleading information.

Contextual Limitations: May struggle to maintain context in lengthy conversations or complex situations.

Lack of Domain-Specific Expertise: Although it covers a wide range of topics, it may lack the in-depth knowledge needed for specialized, expert-level tasks.

Ethical Concerns: Despite precautions, it can occasionally produce biased, harmful, or inappropriate content.

Opportunities

Integration Opportunities: Growing use in sectors like education, healthcare, and customer service through APIs and plugins.

Market Growth: Rising demand for AI-driven tools in markets where English is not the primary language.

Collaboration Enhancements: Potential to improve teamwork with advanced integrations into workplace productivity applications.

AI Innovation: Pioneering advancements in conversational AI, focusing on safety, ethics, and multimodal functionality.

Affordable Solutions: Scalable and accessible AI services that benefit small businesses and individuals.

Threats

Competitive Landscape: Fast-paced developments by competitors, such as Google's Bard, Microsoft's AI projects, and others.

Regulatory Challenges: Possible regulations or restrictions regarding AI ethics, data privacy, and misinformation.

Potential Misuse: Risk of harmful applications, including generating spam, phishing content, or deepfake texts.

Trust Issues: Errors, biases, or ethical concerns may undermine user trust and hinder widespread adoption.

Technological Advancements: Rapid progress in AI could quickly make current models obsolete.

Impact of ChatGPT in Everyday Life & Ethical Concerns

Academics

ChatGPT has the potential to revolutionize the academic field by offering personalized and interactive explanations, helping students grasp challenging concepts. The AI can also assist teachers by providing tailored feedback to students, saving time and improving educational efficiency.

Ethical Issues

In 2023, several universities reported incidents where students submitted AI-generated content as their own, violating academic integrity policies and undermining the learning process. This dishonest practice falsely represents the origin of the work and can lead to serious consequences such as damaged reputations, academic penalties, or even expulsion.

Ethical Concern

To address cheating and plagiarism, OpenAI introduced an AI text classifier designed to differentiate between human-written and AI-generated content.

Cyber Security

ChatGPT has made a significant impact on cyber security by helping to detect and prevent cyber-attacks. For example, it can identify malware by analyzing the language used in code, aiding in the detection of malicious activities.

Ethical Issues

In 2023, during the Samsung data breach, employees used ChatGPT to assist with coding and inadvertently shared sensitive company information.

Ethical Concern

In March 2023, Italy's data protection authority temporarily banned ChatGPT, citing concerns that it violated privacy laws by collecting user data for commercial purposes without proper consent. The ban was lifted a month later after OpenAI made adjustments to comply with EU data protection regulations.

Customer Support

ChatGPT enhances customer support by providing personalized assistance through virtual agents that understand customer queries and deliver appropriate responses. These AI-powered agents can offer tailored support and advice to users.

Ethical Issues

During interactions, chatbots often collect sensitive personal data, such as purchase history, addresses, and reasons for returns. Customers may be unaware of how their data is stored, used, or shared, particularly if they haven't been informed of the company's data privacy policies.

Ethical Concern

Data privacy is a critical issue in AI-driven customer support. Companies must ensure customers are fully informed about how their data is handled and ensure it is stored and shared responsibly in accordance with relevant privacy laws and regulations.

Jobs

A company uses ChatGPT-powered AI tools to streamline its hiring process. The AI is responsible for screening resumes, conducting initial interviews, and recommending candidates for further evaluation. Eventually, the AI takes over final hiring decisions, reducing human involvement in the process.

Ethical Issues

Candidates who are rejected by the AI may not understand the reasons behind the decision, as the decision-making process is often opaque. The AI's recommendations or rejections may be based on complex algorithms that are difficult to interpret. Without transparency, candidates may feel frustrated and lack trust in the system.

Ethical Concern

The lack of transparency in AI hiring decisions raises concerns about accountability. It is crucial that candidates receive clear explanations for why they were selected or rejected. Ensuring transparency and providing understandable reasons for AI-driven decisions is essential for fostering trust and fairness in the hiring process.

Conclusion

The ethical impact of ChatGPT in everyday life presents both opportunities and challenges. On the positive side, AI can enhance accessibility, providing support to individuals with disabilities and promoting inclusive education by offering personalized learning experiences. It can also boost productivity by automating routine tasks, allowing individuals to focus on more complex activities. Additionally, ChatGPT has the potential to offer mental health support and improve communication by assisting with writing and customer service. However, there are significant ethical concerns, including biases in AI responses, privacy risks due to the handling of personal data, and the potential for job displacement as automation replaces human workers in certain industries. The lack of transparency in AI decision-making and the depersonalization of interactions further contribute to concerns, as users may not fully understand how AI makes decisions or may feel undervalued in interactions that lack human empathy. Addressing these ethical issues through responsible AI deployment, transparency, and efforts to mitigate bias is crucial to ensuring that the benefits of ChatGPT are realized while minimizing its risks.

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